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Certificate Of Mailing Under 37 CFR 1.8

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Kandi L. Lortie

Date: September 13, 2007

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.: 10/669,347 **10699347** Examiner: Geoffrey S. Evans

Filing Date: October 31, 2003 Confirmation No.: 2522

Title: Food Processing Apparatus And Method Inventor: Xiaochun Li

Attorney Docket: 539.005 Art Unit: 1725

PETITION TO WITHDRAW HOLDING OF ABANDONMENT

Mail Stop – Petitions Commissioner for Patents P.O. Box 1450 Arlington, VA 22313-1450

Sir:

The Notice of Abandonment, mailed on August 17, 2007 indicates that the above-captioned patent application is abandoned due to applicant's alleged failure to timely reply to the Office Action of January 31, 2007. The Manual of Patent Examining Procedure (MPEP) allows an applicant to request reconsideration of a holding of abandonment when he or she disagrees on the basis that there is no abandonment in fact. MPEP § 711.03. In the present case, applicant (now Petitioner) timely filed a response to the outstanding Office Action bearing a Certificate of Mailing in full compliance with 37 CFR §1.8(a). Petitioner therefore requests that the holding of abandonment be withdrawn.

10699347 Serial No. 10/669,347 to Li

Art Unit: 1725

Page 2

BACKGROUND

The Patent Office mailed an Office Action on January 31, 2007. Petitioner filed a Reply

on May 31, 2007 with a request for a one-month extension of time (see page 11 of May 31, 2007

Reply) and corresponding fee for a small entity, as well as an authorization to charge the deposit

account of Applicant's representative for three (3) additional dependent claims. The response

bears a Certificate of Mailing signed by a person with reasonable knowledge of the timely

mailing of the response. A copy of that response bearing the Certificate of Mailing is attached.

Also, a copy of the postcard filed with the May 31, 2007, Reply received by Applicant's

representative from the U.S. Patent and Trademark Office (indicating receipt by the U.S. Patent

and Trademark Office) is also attached. The actual received postcard may be provided upon

request.

The Notice of Abandonment was issued on August 17, 2007, for failure to timely reply to

the Office Action of January 31, 2007.

PETITION

In light of the foregoing, Petitioner hereby requests that the May 31, 2007 response be

treated as timely filed and that the holding of abandonment be withdrawn. To the extent that the

requirements of 37 CFR §1.8(b) may not have been satisfied by previous submissions, Petitioner

hereby:

1. Supplies an additional copy of the previously mailed response and the

certificate.

{00060030.DOC /}

10699347 Serial No. 10/669,347 to Li

Art Unit: 1725

Page 3

2. Includes a statement by Cheryl Yeko attesting on personal knowledge to

the previous timely mailing of the response.

3. Includes a copy of the postcard submitted with the May 31, 2007 Reply

and returned by the U.S. Patent and Trademark Office.

In light of the foregoing, grant of this Petition, withdrawal of the holding of

abandonment, entry of the Reply, and forwarding of the Reply to the Examiner for consideration

are believed to be in order and are respectfully requested.

No fees are believed to be payable with this communication. Nevertheless, should the

Examiner consider any other fees to be payment in conjunction with this or any future

communications, the Director is authorized to direct payment of such fees to Deposit Account

No. 50-1170.

Respectfully submitted,

Registration No. 41,723

Dated: September 13, 2007

Boyle Fredrickson, S.C.

840 N. Plankinton Ave.

Milwaukee, WI 53203

Telephone: (414) 225-9755

Facsimile: (414) 225-9753

Certificate of Mailing Under 37 CFR 1.8

PADEMAN PADEMAN PROPERTY OF Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date indicated below.

Date: September 13, 2007

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.: 10/669,347 10699347 Inventor: Xiaochun Li

Filing Date: October 31, 2003 Examiner: Geoffrey S. Evans

Title: Food Processing Apparatus And Method Confirmation No.: 2522

Attorney Docket: 539.005

DECLARATION OF CHERYL D. YEKO

Commissioner for Patents P.O. Box 1451 Alexandria, VA 22313-1451

I, Cheryl D. Yeko, attest to the following:

- On May 31, 2007, I assisted attorney Jay Durst in preparing an Amendment and Response to Office Action for filing on May 31, 2007.
- I deposited the as-filed amendment on May 31, 2007, at the Post Office receptacle at 250 E. Wisconsin Ave., Milwaukee, WI, 53202. I signed the Certificate of Express Mailing bearing Express Mail Label No. EV034624005 US at the top of the Amendment on May 31, 2007, prior to placing the amendment in the Post Office receptacle at 250 E. Wisconsin Ave., Milwaukee, WI, 53202.

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XIAOCHUN LI – Response to Notice of Abandonment

Serial No.: 10/669,347 **10699347**

Atty. Docket No.: 539.005

Page 2 of 2

I declare that all statements made herein of my own knowledge are true and that

all statements made on information and belief are believed to be true; that these

statements were made with the knowledge that willful false statements and the like so

made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the

United States Code; and that willful false statements may jeopardize the validity of the

application or any patent issuing thereon.

Respectfully submitted,

Cheryl D. Yeko

Assistant to Jay G. Durst Boyle Fredrickson, SC

JGD/kll

Customer Number: 23598

Dated: September 13, 2007

Boyle Fredrickson, S.C.

840 N. Plankinton Ave.

Milwaukee, WI 53203

Telephone: (414) 225-9755

Facsimile: (414) 225-9753

{00144284.DOC/}

The U.S. Patent and Trademark Office stamp placed hereon indicates receipt of:

Serial No.: 10/699,347 Filed: 10/31/2003

Title: Food Processing Apparatus & Method

Inventor: Xiaochun Li

Included are:

Fee Transmittal Form

Amendment – 11 pages

Certificate of Express Mailing dated May 31, 2007

Return Postcard Attorney: JGD Docket No: 539.005



Approved for use through 10/31/2002. OMB 0651-0032
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Name (Print/Type) Jay G. Durst Registration No. (Attorney/Agent) 41,723 Telephone (414) 225-630							6300		
Signature	10		/			Date	May 31, 200		

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

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Approved for use through 10/31/2002. OMB 0651-0031

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TRANSMITTAL		Application Number		10/669,347 -10699347			
FORM	Filing Date	Oct	October 31, 2003				
(to be used for all correspondence after initial filing)		First Named Inventor	Xia	Xiaochun Li			
·		Group Art Unit	172	1725			
		Examiner Name	Ged	Geoffrey S. Evans			
Total Number of Pages in This Submission		Attorney Docket Number		319			
ENCLOSURES (check all that apply)							
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CERTIFICATE OF EXPRESS MAILING UNDER 37 CFR 1.10

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Date of Deposit: May 31, 2007

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Cheryl D. Yeko

Date

Attorney Docket No. 539.005

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.: 10/669,347 10699347

Inventor: Xiaochun Li

Filing Date: October 31, 2003

Examiner: Geoffrey S. Evans

Title: Food Processing Apparatus And Method

Confirmation No.: 2522

AMENDMENT AND REPLY

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

The following is in response to the Office Action dated January 31, 2007. Along with this response, Applicant submits complete copies of the foreign references disclosed to the USPTO on October 24, 2005 in Form PTO/SB/08A & B, concluding that IDS submission. Please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing, which begins on page 2 of this paper.

Remarks begin on page 6 of this paper.

Serial No.: 10/669,347 **10699347**

Atty. Docket No.: 539.005

Page 2 of 11

Amendments to the Claims

The following listing of claims will replace all prior versions and listing of claims in the

application.

1. (Currently Amended) A method of processing a food product, the method

comprising the steps of:

providing a source of pulsed ultraviolet (UV) radiation within a wavelength range

equal to about 150 nm to about 280 nm; and

directing the UV radiation at the food product so as to photo-ablate without

substantially heating the food product.

2. (Previously Presented) The method of claim 1, further comprising selecting a

combination of parameters associated with the radiation.

3. (Previously Presented) The method of claim 2, wherein the parameters include at

least one of a group including radiation focus spot size, radiation pulse repetition rate and source

power.

4. (Previously Presented) The method of claim 3, wherein said selecting step includes

increasing the pulse rate so as to increase processing efficiency.

5. (Previously Presented) The method of claim 2, further comprising adjusting the

parameters to alter a performance characteristic of the method.

Serial No.: 10/669,347 10699347

Atty. Docket No.: 539.005

Page 3 of 11

6. (Previously Presented) The method of claim 5, wherein the performance

characteristic is processing speed.

7. (Cancelled)

8. (Previously Presented) The method of claim 6, wherein the UV radiation has a

wavelength equal to about 266 nm.

9. (Currently Amended) An apparatus for processing a food product, the apparatus

comprising:

a laser emitting radiation having a wavelength in the ultraviolet range, within a

wavelength range equal to about 150 nm to about 280 nm; and

wherein a combination of parameters associated with the radiation is selected so that

said laser photo-ablates without substantially heating the food product.

10. (Previously Presented) The apparatus of claim 9, wherein the parameters include at

least one of a group including radiation focus spot size, radiation pulse repetition rate and source

power.

11. (Previously Presented) The apparatus of claim 10, wherein the combination is based

on a characteristic of the food product.

12. (Previously Presented) The apparatus of claim 10, wherein the combination is based

Serial No.: 10/669,347-10699347

Atty. Docket No.: 539.005

Page 4 of 11

on a profile defined by ablation depth versus laser intensity.

13. (Previously Presented) The apparatus of claim 10, wherein the combination is adjusted according to a performance characteristic.

14. (Previously Presented) The apparatus of claim 13, wherein the performance characteristic is cutting depth.

15. (Cancelled)

16. (Currently Amended) The apparatus of claim 1, wherein the UV radiation has a wavelength equal to about 266 nm.

17. (Currently Amended) An apparatus for processing a food product, the apparatus comprising:

a laser emitting radiation having a wavelength in an ultraviolet range equal to about 150 nm to about 280 nm, wherein the radiation is directed towards the food product so as to photoablate the food product without substantially heating the food product.

- 18. (Previously Presented) The apparatus of claim 17, wherein the radiation is defined by a combination of parameters.
- 19. (Previously Presented) The apparatus of claim 18, wherein the combination includes focus spot size, radiation pulse repetition rate, and laser power.

Serial No.: 10/669,347 **10699347**

Atty. Docket No.: 539.005

Page 5 of 11

20. (Previously Presented) The apparatus of claim 17, wherein the combination corresponds to at least one of a group including a processing performance characteristic and a characteristic of the food product.

- 21. (Previously Presented) The apparatus of claim 17, wherein the wavelength is about 200 nm.
- 22. (Currently Amended) A method of processing a food product, the method comprising the steps of:

providing a laser that generates ultraviolet (UV) radiation, wherein the UV radiation has a wavelength in a range equal to about 150 nm to about 280 nm;

selecting operation parameters associated with the laser, wherein the parameters include radiation focus spot size, radiation pulse repetition rate and source power; and

directing the UV radiation towards the food product at a repetition rate equal to at least about 20 Hz so as to photo-ablate the food product.

- 23. (New) The method of claim 1, wherein the source of pulsed UV radiation is operated at a pulse duration of about 10 nanoseconds at a repetition rate of at least about 20 Hz.
- 24. (New) The method of claim 23, wherein the source of pulsed UV radiation is operated at a pulse duration of about 10-nanoseconds at a repetition rate of at least about 1 kHz.
 - 25. (New) The apparatus of claim 9, wherein an average power of radiation is in a range

Serial No.: 10/669,347 **10699347**

Atty. Docket No.: 539.005

Page 6 of 11

equal to about 3.5W to about 40W while photo-ablating the food product.

- 26. (New) The apparatus of claim 17, wherein the radiation has a wavelength equal to about 266 nm and an average power during operation equal to at least about 3.5W.
- 27. (New) The method of claim 22, wherein the laser is operated at a pulse repetition rate of at least about 1 MHz and the food processing does not substantially heat the food product.

Serial No.: 10/669,347 10699347

Atty. Docket No.: 539.005

Page 7 of 11

REMARKS

Entry of the above amendments is respectfully requested. Claims 1, 9, 16, 17, and 22 have been amended. Claims 7 and 15 have been canceled. New claims 23 - 27 are added. Accordingly, claims 1 - 6, 8 - 14, and 16 - 27 are pending in this case. The amendments and new claims find support at, e.g., pages 10 and 12, and elsewhere in the application as filed, whereby no new matter is presented in such new claims. Please note the amendments and the new claims merely further clarify the scope of the invention such that no further search is required.

Summary of Office Action

In the Office Action mailed January 31, 2007, the Examiner rejected claims 1-3 under 35 U.S.C. § 102(b) as being anticipated by Yamazaki et al. (JP Pat. No. 2001-178,434). The Examiner rejected claims 1-3, and 9-14 under 35 U.S.C. § 102(e) as being anticipated by O'Neill (US Pat. No. 6,394,889). The Examiner also rejected claims 1-3, 7, and 9-22 under 35 U.S.C. § 102(b) as being anticipated by L'Esperance, Jr. (US Pat. No. 5,312,320). The Examiner rejected claim 22 under 35 U.S.C. § 102(e) as anticipated by Kliewer et al. (US Pat. No. 6,572,606). The Examiner rejected claim 4 under 35 U.S.C. § 103(a) as being unpatentable over L'Esperance, Jr. in view of Morris et al. (US Pat. No. 6,472,295). The Examiner further rejected claims 5, 6, and 8 under 35 U.S.C. § 103(a) as being unpatentable over L'Esperance, Jr. in view of Oikawa et al. (JP Pat. No. 10-249,571).

Applicant respectfully disagrees with the Examiner as to the art and the various interpretation(s) thereof. At least for the reasons set forth below, Applicant believes that the present claims are patentably distinct over the art of record.

Serial No.: 10/669,347-10699347

Atty. Docket No.: 539.005

Page 8 of 11

Prior Art Rejections

Turning to the rejection of independent claim 1 under 35 U.S.C. § 102(a) by Yamazaki et al., 35 U.S.C. § 102(b) by L'Esperance, Jr., and under 35 U.S.C. § 102(e) by O'Neill, this claim has been amended to include recitations of emitting radiation in a range equal to about 150 nm to about 280 nm, and that the food product is subjected to photo-ablation without substantially heating the food product. In other words, the subject matter of claim 1 is directed to non-thermal or cold ablation of a food product.

None of the references of record identically disclose, teach, or suggest all the limitations of amended Claim 1. Specifically, regarding the Yamazaki et al., L'Esperance, Jr., and O'Neill references, these references disclose systems for performing entirely different procedures. Such references are directed toward potato skin removal using hot ablation procedures, ophthalmological surgeries, and animal hide removal using hot ablation procedures, respectively. Correspondingly, none of them disclose, teach, or suggest the recited wavelength range or photo-ablating a food product without substantially heating it. Stated another way, none of the references of record teach, suggest, or otherwise disclose non-thermal or cold ablation of a food product.

Turning to the rejection of independent claims 9, 17, and 22 under 35 U.S.C. § 102(b) made in light of L'Esperance, Jr., by analogy, the amendments herein also obviate these rejections. Amended independent claims 9 and 17 include similar recitations to those of claim 1 discussed above, whereby each of claims 1, 9, and 17 now recites radiation in a wavelength range equal to about 150 nm to about 280 nm, and photo-ablating a food product without substantially heating the food product. Claim 22 now also recites radiation in a wavelength range equal to about 150 nm to about 280 nm, and further recites a repetition rate equal to at least about 20 Hz. Similar to independent claims 1, 9, and 17, the operating parameters of claim 22, such as the recited wavelength range and repetition rate, effectuate non-thermal or cold ablation of a food product. The

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Serial No.: 10/669,347-10699347

Atty. Docket No.: 539.005

Page 9 of 11

L'Esperance, Jr. reference, directed to ophthalmological surgeries does not disclose, teach, or suggest such subject matter, nor does any other reference of record.

The amendment to independent claim 22 also obviates the rejection under 35 U.S.C. § 102(b) made in light of Kliewer et al., for the same reasons. Kliewer et al. is another reference relating to ophthalmological surgeries and does not disclose, teach, or suggest the subject matter of amended claim 22. It does not identically disclose, nor does it teach or suggest, non-thermal or cold ablation of a food product in any regard.

The Examiner then rejected claims 4, 5, 6, and 8 under 35 U.S.C. §103(a) using L'Esperance, Jr. as a primary reference and citing it in view of Morris et al. (rejection of claim 4) or Oikawa et al (rejection of claims 5, 6, and 8). These rejections rely, at least in part, upon the Examiner's misinterpretation and application of L'Esperance, Jr. Simply stated, these references are from a non-analogous art; specifically, one looking to solve food processing related problems would not reasonably look to techniques relating to ophthalmological surgeries for solutions thereto.

For example, the conditions and technical problems one faces in an ophthalmological surgery environment and those one faces in a food processing environment are completely dissimilar. Any similar apparatus used in the two distinct disciplines must be modified, adapted, and/or reconfigured to suitably perform the particular desired end use operation. In seeking guidance on how to adapt and configure a device for non-thermal or cold photo-ablation type cutting and/or processing food products (or how to solve food processing related issues), one does *not* reasonably look to ophthalmological surgery equipment which is adapted and configured to superficially revise the contours of the eye, such as those disclosed in of L'Esperance, Jr. and Kliewer et al.

Fundamentally, if for no other reason, during ophthalmological surgeries, the subject is a living being, whereby the subject's welfare is paramount and therefore supersedes all other considerations if there are any conflicts therewith. In stark contrast, in food processing, costs, time

Serial No.: 10/669,347**10699347**

Atty. Docket No.: 539.005

Page 10 of 11

efficiency, and/or other economic considerations are typically the principal considerations. In light of these and other diametrically opposed end-of-procedure goals in comparing ophthalmological surgeries to food processing procedures, Applicant reiterates that one looking to solve food processing related problems does not look to fields of ophthalmological surgeries for answers. Regardless, the amendment of independent claims 1, 9, 17, and 22 resolve any such issues.

New Claims

Although Applicant submits that the rejections to claims 1-22 have been overcome or otherwise obviated by canceling claims 7 and 15, amending claims 1, 9, 16, 17, and 22, and by the above arguments, Applicant herein submits new claims 23-27 to even further clarify the subject matter of the invention. New claims 23-27 are directed toward, e.g., power used in non-thermal or cold photo-ablating a food product, pulse durations, and repetition rates. Notably, using a pulsed laser operated at a frequency (repetition rate) as defined in the claims facilitates <u>cold</u> ablation in the present invention (as opposed to, for example, the Yamazaki laser which generates significant heat during operation given that it is effectively non-pulsed, which of course is of no consequence in the applications contemplated by Yamazaki). In sum, these amendments are presented in a full and good faith effort to move this case to allowance.

In light of at least the forgoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests issuance of a notice of allowance of claims 1-6, 8-14, and 16-27.

Serial No.: 10/669,347-10699347

Atty. Docket No.: 539.005

Page 11 of 11

Conclusion

In view of the above remarks, the objections and rejections of the present Action are believed to be overcome. As a result, claims 1-6, 8-14, and 16-26 are believed to be in compliance with 35 U.S.C. §§ 102, 103, and 112 and as such are believed to be in condition for allowance.

Applicant respectfully requests a one-month extension of time to file this Reply (\$60) and three additional claims in excess of twenty (\$75). Please charge Deposit Account No. 50-1170 the \$135.00 fee. No other fees are believed payable with this communication. Nevertheless, should the Examiner consider any fees to be payable in conjunction with this or any future communication, authorization is given to charge payment of such fees or credit any overpayment to Deposit Account No. 50-1170.

Should the Examiner have any questions or wish to discuss this matter further, the Examiner is invited to contact the undersigned at the below number.

Respectfully submitted,

Registration No. 41,723

JGD/cdy

Customer Number: 23598

Dated: 5/3/107

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